

Remarks

Claims 1-8 are pending. Claims 1-8 are rejected. Claims 1, 4, and 7 are amended herein. Claims 2-3, 5-6, and 8 are cancelled. No new matter is added. All rejections are respectfully traversed.

Claims 1-8 are objected to. Claims 1, 4, and 7 are amended to overcome the objections. Claims 2-3, 5-6 and 8 are cancelled without prejudice or disclaimer.

Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph as being indefinite.

Claim 1 is rejected because the Examiner asserts “the limitation ‘such TCP control packets control’ is unclear.” The Examiner explains that it is “unclear what is being controlled by the TCP control packets.” The Examiner is respectfully directed to the entire claim element “b) assigning by the switch, within the packet, a packet transmission priority to such determined TCP control packets that is different to the priority of TCP data packets that such TCP control packets control.” By reading the entire element b) of claim 1, any person of ordinary skill in the art would readily understand the TCP control packets control TCP data packets. The claim element is written with fundamental grammatical correctness to convey the understanding that TCP control packets control TCP data packets. No amendment is necessary. The Examiner is respectfully requested to reconsider and withdraw the rejection.

Claim 2 is rejected because the Examiner asserts that the limitation “establishing if any flag bit other than the PSH flag bit is set” is unclear because the Examiner does not understand what is being established. Here again, completely understandable and grammatically correct English is used in the claim. The Examiner appears to have failed to properly understand the meaning of the word *establishing* as set forth in the claim.

The Examiner should understand that any person of ordinary skill in the art would readily understand that *establishing*, when read in the context of the claim, bears the meaning of synonyms such as ‘determining, ascertaining, verifying, and confirming.’ The Examiner appears to improperly apply another set of synonyms for *establishing* that include founding, starting, creating, and the like. The Examiner has apparently failed to recognize the context in which ‘establishing’ is used and applied the wrong meaning to the word. A person of ordinary skill in the art would readily understand the context and meaning to apply to the word *establishing* as recited in claim 1, which has been amended to incorporate the limitation of claim 2. Therefore, the rejection should be reconsidered and withdrawn.

Claim 3 is cancelled. Claim 1 has been amended to incorporate the limitations of claim 3 in a way that renders the 112 rejection moot.

Claims 1 and 4 are rejected under 35 U.S.C. 102(e) as being anticipated by Fluss (U.S. 6,304,578).

Claim 1 is amended to incorporate the limitations of claims 2 and 3. Claim 4 is amended to incorporate the limitations of claims 5 and 6. Therefore, the

rejections of claims 1 and 4 will be addresses according to the 35 U.S.C.

103(a) rejection based on Fluss in view of Nakamura, et al., (U.S. 6,553,031).

Claims 2-3, 5 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fluss in view of Nakamura, et al., (U.S. 6,553,031 – “Nakamura”).

Independent claims 1, 4, and 7, incorporate the limitation of cancelled dependent claims 2-3, 5-6, and 8, respectively. Each independent claim recites checking a TCP header of a packet to determine if the packet is a TCP control packet. The determination that a TCP packet is a TCP control packet is based upon whether or not a PSH flag bit is set in the TCP header. Packet transmission priority is increased based on a determination that any flag other than the PSH flag is set, thereby identifying a TCP control packet. As the examiner admits, and the Applicants agree, Fluss only teaches determining control packet status based on packet size. Further, Fluss never explicitly teaches TCP control packets, rather Fluss teaches ICMP and IGMP (see col. 7, lines 60-65), which are IP based, not TCP based, as claimed. Fluss makes the determination of control packet status, and subsequently sets packet transmission priority, based on whether or not a packet size is above or below a size threshold. Therefore, the Examiner looks to Nakamura to teach what Fluss lacks.

Nakamura fails to cure the defects of Fluss. Nakamura describes assigning entry priorities for addresses in a sub-routing table used by line interface boards in a switch. The priorities described in Nakamura are entry priorities

for entry of addresses in the sub-routing table. A person of ordinary skill in the art would never confuse the teachings of Nakamura with packet transmission priority, as described in Fluss, or as claimed.

According to RFC 3168, there are eight control bits (flags) in a TCP header:

CWR -- Congestion Window Reduced;

ECE (ECN-Echo) -- indicate that the TCP peer is ECN capable during 3-way handshake;

URG -- indicates that the URGent pointer field is significant;

ACK -- indicates that the ACKnowledgment field is significant;

PSH -- Push function;

RST -- Reset the connection;

SYN -- Synchronize sequence numbers; and

FIN -- No more data from sender

Nakamura explicitly states that sub-routing table entry priority is determined by looking at the SYN and FIN flag bits. *Note, since no SYN control bit exists, it is understood by Applicants that Nakamura intended SYN and that SYN is a typographical error.* Nakamura's explicit interest in the SYN (SYN in Nakamura) and FIN control flags at col. 13, lines 9-40 makes sense for Nakamura, because the SYN flag bit identifies the start of a communication connection, thereby indicating a need for the use of a speedy sub-routing table by the communication connection. The FIN flag bit indicates the end of a communication connection, thereby allowing the deletion of the an address entry in the sub-routing table. Packets having SYN flag bits or FIN flag bits set are used by Nakamura to update entry priorities in a sub-routing table. Meaning a FIN flag bit indicates to Nakamura that the associated entry has low/no priority and may be overwritten. While SYN flag bits mean a sub-routing table entry for an associated address should be created (high priority).

It is not understood why the Examiner continues to cite Nakamura as a reference when Nakamura has absolutely nothing to do with packet transmission priority. Nakamura updates address routing tables. The invention allocates packet transmission priority. Further, there is no suggestion in Nakamura to change anything based on whether the PSH flag bit is set, as opposed to any other flag bit. That is the condition (either PSH bit set, or any other flag bit set) that the invention relies on and explicitly recites to allocate transmission priority. The Examiner is requested to specifically point out where either reference even mentions a PSH control flag bit. The Applicants have thoroughly searched both references and cannot find PSH, push or any mention whatsoever to the PSH flag bit. Therefore, neither reference, alone or in combination, can teach the condition, explicitly recited in the claims, that determines packet transmission priority according to the invention. Therefore, the rejection should be reconsidered and withdrawn.

The Examiner will note that the amendments to the claims incorporate only dependent claims and therefore do not require a new search.

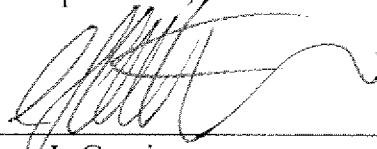
It is believed that this application is now in condition for allowance. A notice to this effect is respectfully requested.

Should further questions arise concerning this application, the Examiner is invited to call Applicant's attorney at the number listed below.

Please charge any shortage in fees due in connection with the filing of this paper to Deposit Account 50-6350.

Respectfully submitted,
3Com Corporation,

By

A handwritten signature in black ink, appearing to read "Andrew J. Curtin", written over a horizontal line.

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